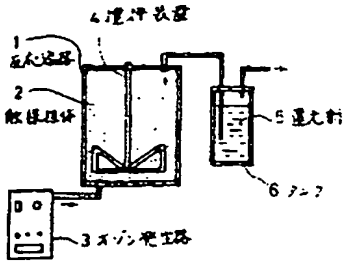
EUROPEAN PATENT OFFICE

Patent Abstracts of Japan



PUBLICATION NUMBER : 61237368
PUBLICATION DATE : 22-10-86

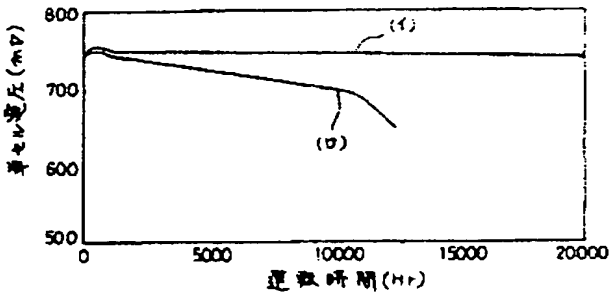
APPLICATION DATE : 12-04-85
APPLICATION NUMBER : 60077726

APPLICANT : FUJI ELECTRIC CO LTD;

INVENTOR : SAKURAI MASAHIRO;

INT.CL. : H01M 4/86 H01M 4/92

TITLE : TREATMENT OF CATALYST SUPPORT FOR FUEL CELL ELECTRODE



ABSTRACT : PURPOSE: To improve the acid-resistant performance of catalyst support and to stabilize the electrode characteristic by oxidizing unsaturated compound existing on the surface of catalyst support by means of ozone gas.

CONSTITUTION: A catalyst support 2 such as furnace black is contained in a reaction container 1 then ozonized air or ozonized oxygen produced from ozone generating section 3 is injected through the lower section of the reaction container 1 to contact with the catalyst support 2 to be oxidized. In order to improve the reaction efficiency, an agitator 4 is provided while non-reacted ozone is led into a tank 6 filled with reducing agent solution 5 such as sodium sulfite or potassium iodide arranged from the upper section in the reaction container 1 to the outside to be reduced into oxygen and discharged to the atmosphere. Curve (a) shows the relation between the operating time of cell and the output voltage of an electrode in accordance to this invention while curve (b) shows same relation for conventional electrode and it can be seen that high catalyst activity will improve the acid-resistant performance of support to maintain the voltage for long term thus to maintain stable cell characteristic.